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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/772,959

01/31/2001

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7059542001

1488

23517 7590 11/07/2008  
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EXAMINER

HO, CHUONG T

ART UNIT

PAPER NUMBER

2419

MAIL DATE

DELIVERY MODE

11/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/772,959	<b>Applicant(s)</b> TEIXEIRA, JOE	
	<b>Examiner</b> CHUONG T. HO	<b>Art Unit</b> 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/17/08 has been entered.

### ***Drawings***

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The amendment filed 10/17/08 have been entered and made of record.

***Response to Arguments***

Applicant's arguments filed 10/17/08 have been fully considered but they are not persuasive.

In the page 11, line 28, the applicant argues that “Zitting does not disclose disconnecting or establishing a connect in a cross connect switch (i.e. loop management device), as required by the present invention, as recited in claims 1, 6, 13, 18, 25 and 30”.

The examiner respectfully disagrees with the applicant's argument.

Zitting '148 disclose disconnecting or establishing a connect in a cross connect switch (i.e. loop management device) (figure 1, figure 4, col. 42-50, instructing relay matrix 172 to switch the tip and ring wires of communication lines 42).

In the page 12, lines 9-11, the applicant argues that “Dunn does not disclose or suggest disconnecting or establishing a connect in a cross connect switch (i.e., loop management device)., as required by the present invention, as required by the present invention, for example, as recited by claims 1, 6, 13, 18, 25 and 30”.

The examiner respectfully disagrees with the applicant's argument.

Dunn '793 discloses disconnecting or establishing a connect in a cross connect switch (figure 1, Auxiliary ECMDF 35) (col. 3, lines 50-57, the controller 10 “NMS” gives instructions to Auxiliary ECMDF 35 to remove or add a connection in Auxiliary ECMDF 35).

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For the reasons above, the examiner believes the 103 rejection of claims 1, 13, and 25 should be sustained.

4. Claims 1-36 are pending.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2-12, 13, 14-24, 25, 26-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Zitting et al. (U.S. Patent No. 6,584,148 B1) in further view of Dunn et al. (U.S. Patent No. 6,072,793).

In the claim 1, the admitted prior art (figure 1 is a block diagram of a prior art telecommunication system implementing xDSL service) discloses providing digital subscriber line service for a first subscriber (figure 1, 104) via a competitive local exchange carrier (figure 1, central office 106) test access switch 110 to a competitive local exchange carrier (figure 1, central office 106) digital subscriber line access multiplexer (figure 1, DSLAM 108) connected to a digital telecommunication network,

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the test access switch supplying a connection between data processing equipment of the first subscriber (figure 1, 104) and the digital subscriber line access multiplexer (figure 1, DSLAM 108) and collocation arrangement demarcation (figure 1, terminal block 111), the test-access switch (figure 1, 110) and the collocation arrangement demarcation (figure 1, 111) connected between the digital subscriber line access multiplexer (figure 1, DSLAM 108) and a central office (figure 1, central office 106) main distributing frame.

However, the admitted prior art is silent to disclosing the test-access switches is cross-connect capability.

Zitting '148 discloses the system and method of the present invention also provide protection switching by cross-connecting communication lines from their existing connection with a DSL access multiplexer (DSLAM) in the central office to an alternative connection with the DSLAM. For instance, if a DSL modem card in the DSLAM fails, the present invention is capable of switching the existing connections with the failed modem card to an alternative modem card. The cross-connect capability also provides a method of changing the type of DSL service provided to a customer (see col. 2, lines 23-30); comprising:

See figure 1, figure 4, providing digital subscriber line server for a first subscriber (see figure 1, col. 3, lines 29-30, numerous customer premises 30) via a CLEC any-to-any cross-connect switch (see figure 1, RTI 36) connected to a CLEC (figure 1, see col. 1, line 45, CLECs) digital subscriber line access multiplexer (see figure 1, DSLAM 28) connected to digital telecommunication network, the cross connect switch (see figure 1,

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RIT 36) supply a connection between data processing equipment of the first subscriber (col. 3, lines 29-30, customer premises 30) and the digital subscriber line access multiplexer (see figure 1, DSLAM 28) (see col. 3, lines 15-30, col. 9, lines 1-9, lines 44-50);

In response to receiving the indication at the network management system (see figure 1, loop management device 26), transmitting a command (the start test signal) to the cross connect switch (see figure 1, RTI 36, figure 4, Relay matrix 172) to switch out the connection of the data processing equipment of first subscriber (col. 3, lines 29-30, customer premises 30) to the digital multiplexer (see col. 9, lines 1-9, lines 44-50); and In response to receiving the command (see col. 9, lines 1-9, the start test signal) at the cross-connect switch (see figure 1, RTI 36, figure 4, Relay matrix 172) , switching out the connection of the data processing equipment of first subscriber (see figure 1, customer premises 30, col. 9, lines 1-9, disconnect communications) to the digital access multiplexer (see col. 9, lines 1-9, lines 44-50).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Zitting '148, since the Zitting '148 disclose the motivation in the col. 1, lines 49-51 which avoids DSL service outages or degradation, as well as the associated labor and travel costs are critical to the success of local exchange carriers competing for DSL customers

However, the combined system (the admitted prior art – Zitting '148 ) are silent to disclosing receiving, at a network management system connected to the cross connect switch, an indication that the first subscriber has terminated service.

Dunn '793 discloses in response to a request from an operation support system to the controller 10 (network management system), the auxiliary ECMDF establishes a connection between a specified subscriber and specified input to the SLCRT 31; comprising:

receiving at a network management system (see figure 1, controller 10) connected to the cross connect switch ( see figure 1, AUX ECMDF 35, AUX FRAME 21, ,LEC Switch 3, CAP Switch 5), an indication that the first subscriber has terminated service (see figure 1, col. 3, lines 46-55, lines 9-16);

in response to receiving the indication at the network management system (controller 10), transmitting a command to the cross connect switch (see figure 1, AUX ECMDF 35, AUX FRAME 21, ,LEC Switch 3, CAP Switch 5) to switch out (to add or remove connections) the connection of the data processing equipment of first subscriber (see figure 1, col. 3, lines 46-55, lines 9-16);

in response to receiving the command at the cross-connect switch, the cross-connect\_switch (figure 1, AUX ECMDF 35) switching out the connection of the data processing equipment of first subscriber to the digital access multiplexer (figure 1, subscriber loop carrier (SLC) C.O. Terminal 33) by disconnecting a connection in the cross-connect switch that connects the cross-connect switch to the digital access



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multiplexer (col. 3, lines 50-56, the controller 10 instructs the Auxiliary ECMDF 36 to remove "switch out" the connection) (see figure 1, col. 3, lines 46-55, lines 9-16).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Admitted prior art – Zitting '148) with the teaching of Dunn '793, since Dunn '793 recited the motivation in the col. 3, lines 57-58 which eliminates the need for dispatching, a craftsperson to the remote terminal for every change, as is required today.

7. In the claim 13, the admitted prior art (figure 1 is a block diagram of a prior art telecommunication system implementing xDSL service) discloses providing digital subscriber line service for a first subscriber (figure 1, 104) via a competitive local exchange carrier (figure 1, central office 106) test access switch 110 to a competitive local exchange carrier (figure 1, central office 106) digital subscriber line access multiplexer (figure 1, DSLAM 108) connected to a digital telecommunication network, the test access switch supplying a connection between data processing equipment of the first subscriber (figure 1, 104) and the digital subscriber line access multiplexer (figure 1, DSLAM 108) and collocation arrangement demarcation (figure 1, terminal block 111), the test-access switch (figure 1, 110) and the collocation arrangement demarcation (figure 1, 111) connected between the digital subscriber line access multiplexer (figure 1, DSLAM 108) and a central office main distributing frame.

However, the admitted prior art is silent to disclosing the test-access switches is cross-connect capability.

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Zitting '148 discloses the system and method of the present invention also provide protection switching by cross-connecting communication lines from their existing connection with a DSL access multiplexer (DSLAM) in the central office to an alternative connection with the DSLAM. For instance, if a DSL modem card in the DSLAM fails, the present invention is capable of switching the existing connections with the failed modem card to an alternative modem card. The cross-connect capability also provides a method of changing the type of DSL service provided to a customer (see col. 2, lines 23-30); comprising:

See figure 1, figure 4, providing digital subscriber line server for a first subscriber (see figure 1, customer premises 30) via a CLEC any-to-any cross-connect switch (see figure 1, loop management 26) connected to a CLEC (see col. 1, line 45, CLECs) digital subscriber line access multiplexer (see figure 1, DSLAM 28) connected to digital telecommunication network, the cross connect switch (see figure 1, loop management 26) supply a connection between data processing equipment of the first subscriber (customer premises 30) and the digital subscriber line access multiplexer (see figure 1, DSLAM 28) (see col. 9, lines 1-9, lines 44-50);

In response to receiving the indication at the network management system (see figure 1, loop management device 26), transmitting a command (the start test signal) to the cross connect switch (see figure 1, loop management device 26) to switch out the connection of the data processing equipment of first subscriber (customer premises 30) to the digital multiplexer (see col. 9, lines 1-9, lines 44-50); and

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In response to receiving the command (see col. 9, lines 1-9, the start test signal) at the cross-connect switch (see figure 1, loop management device 26) , switching out the connection of the data processing equipment of first subscriber (see figure 1, customer premises 30) to the digital access multiplexer (see col. 9, lines 1-9, lines 44-50).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Zitting '148, since the Zitting '148 disclose the motivation in the col. 1, lines 49-51 which avoids DSL service outages or degradation, as well as the associated labor and travel costs are critical to the success of local exchange carriers competing for DSL customers

However, the combined system (the admitted prior art – Zitting '148 ) are silent to disclosing receiving, at a network management system connected to the cross connect switch, an indication that the first subscriber has terminated service.

Dunn '793 discloses in response to a request from an operation support system to the controller 10 (network management system), the auxiliary ECMDF establishes a connection between a specified subscriber and specified input to the SLCRT 31; comprising: receiving at a network management system (see figure 1, controller 10) connected to the cross connect switch ( see figure 1, AUX ECMDF 35, AUX FRAME 21, ,LEC Switch 3, CAP Switch 5), an indication that the first subscriber has terminated service (see figure 1, col. 3, lines 46-55, lines 9-16);

in response to receiving the indication at the network management system (controller 10), transmitting a command to the cross connect switch (see figure 1, AUX ECMDF 35, AUX FRAME 21, ,LEC Switch 3, CAP Switch 5) to switch out (to add or

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remove connections) the connection of the data processing equipment of first subscriber (see figure 1, col. 3, lines 46-55, lines 9-16);

in response to receiving the command at the cross-connect switch, the cross-connect\_switch (figure 1, AUX ECMDF 35) switching out the connection of the data processing equipment of first subscriber to the digital access multiplexer (figure 1, subscriber loop carrier (SLC) C.O. Terminal 33) by disconnecting a connection in the cross-connect switch that connects the cross-connect switch to the digital access multiplexer (col. 3, lines 50-56, the controller 10 instructs the Auxiliary ECMDF 36 to remove "switch out" the connection) (see figure 1, col. 3, lines 46-55, lines 9-16).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Admitted prior art – Zitting '148) with the teaching of Dunn '793, since Dunn '793 recited the motivation in the col. 3, lines 57-58 which eliminates the need for dispatching, a craftsperson to the remote terminal for every change, as is required today.

8. In the claim 25, the admitted prior art (figure 1 is a block diagram of a prior art telecommunication system implementing xDSL service) discloses a competitive local exchange carrier test access switch 110 connected to a competitive local exchange carrier digital subscriber line access multiplexer (figure 1, DSLAM 108) connected to a digital telecommunications network, the text access switch operable to supply a connection between data processing equipment of a first subscriber (figure 1, 104) and the digital subscriber line access multiplexer, the cross-connect switch connected

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between the digital subscriber line access multiplexer (figure 1, DSLAM 108) and a collocation arrangement demarcation in a central office, the cross connect switch and the collocation arrangement demarcation (figure 1, 111) connected between the digital subscriber line access multiplexer and a central office main distributing frame

However, the admitted prior art is silent to disclosing the test-access switches is cross-connect capability.

Zitting '148 discloses See figure 1, figure 4, a competitive local exchange carrier any-to-any cross-connect switch (figure 1, RTI 36) connected to a competitive local exchange carrier digital subscriber line access multiplexer (figure 1, DSLAM 28) connected to a digital telecommunications network, the cross connect switch (figure 1, RTI 36) operable to supply a connection between data processing equipment of a first subscriber (figure 1, customer premises 30) and the digital subscriber line access multiplexer (figure 1, DSLAM 28) (see col. 9, lines 1-9, lines 44-50);

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Zitting '148, since the Zitting '148 disclose the motivation in the col. 1, lines 49-51 which avoids DSL service outages or degradation, as well as the associated labor and travel costs are critical to the success of local exchange carriers competing for DSL customers

However, the combined system (the admitted prior art – Zitting '148 ) are silent to disclosing receiving, at a network management system connected to the cross connect switch, an indication that the first subscriber has terminated service.

Dunn '793 discloses in response to a request from an operation support system to the controller 10 (network management system), the auxiliary ECMDF establishes a connection between a specified subscriber and specified input to the SLCRT 31; comprising:

a network management system connected to the cross connect switch operable to receive an indication that the first subscriber has terminated service and operable to, in response to receiving the indication, transmit a command to the cross connect switch to switch out the connection of the data processing equipment of first subscriber to the digital access multiplexer; and ( see figure 1, AUX ECMDF 35, AUX FRAME 21, ,LEC Switch 3, CAP Switch 5), an indication that the first subscriber has terminated service (see figure 1, col. 3, lines 46-55, lines 9-16);

wherein the cross-connect switch is further operable to, in response to receiving the command at the cross-connect switch, switching out the connection of the data processing equipment of first subscriber to the digital access multiplexer by disconnecting a connection in the cross-connect switch that connects the cross-connect switch to the digital access multiplexer (see figure 1, col. 3, lines 46-55, lines 9-16).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Admitted prior art – Zitting '148) with the teaching of Dunn '793, since Dunn '793 recited the motivation in the col. 3, lines 57-58 which eliminates the need for dispatching, a craftsperson to the remote terminal for every change, as is required today.

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9. In the claims 2, 14, 26, the admitted prior art (figure 1 is a block diagram of a prior art telecommunication system implementing xDSL service) discloses the connection between data processing equipment of the first subscriber (figure 1, 104) and the digital subscriber line access multiplexer (DSLAM 108) comprises a central office main distributing frame (figure 1, 106) connected to the data processing equipment of the first subscriber (figure 1, 104), a collocation arrangement demarcation (figure 1, 111) connected to the test-access switches 110 and a patch line connecting the central office main distributing frame to the collocation arrangement demarcation.

However, the admitted prior art (figure 1 is a block diagram of a prior art telecommunication system implementing xDSL service) is silent to disclosing the test-access switch is cross-connect capability.

Zitting et al. discloses the system and method of the present invention also provide protection switching by cross-connecting communication lines from their existing connection with a DSL access multiplexer (DSLAM) in the central office to an alternative connection with the DSLAM. For instance, if a DSL modem card in the DSLAM fails, the present invention is capable of switching the existing connections with the failed modem card to an alternative modem card. The cross-connect capability also provides a method of changing the type of DSL service provided to a customer (see col. 2, lines 23-30).

Both the admitted prior art and Zitting are disclose digital subscriber line access multiplexer. Zitting recognizes the cross-connect switch between the digital subscriber line access multiplexer and a central office main distributing frame. Thus, it would have

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been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Zitting to provide the cross-connect switch capability between the digital subscriber line access multiplexer and a central main distributing frame in order to avoid DSL service outages or degradation.

10. In the claims 3, 15, 27, the admitted prior art discloses the connection between the data processing equipment of the first subscriber (figure 1, 104) and the central office main distributing frame (figure 1, 106) is unshared (figure 1, local loop unshared).

11. In the claims 4, 16, 28, the admitted prior art discloses the cross-connect switch is connected to a port of the digital subscriber line access multiplexer (DSLAM) ( see figure 1).

12. In the claims 5, 17, 29, Dunn et al. discloses the step of switching out the connection of the data processing equipment of first subscriber to the digital access multiplexer frees up the port of the digital subscriber line access multiplexer (see figure 1, col. 3, lines 50-56, lines 9-15).

13. In the claims 6, 18, 30, the combined system (Admitted prior art – Zitting '148) discloses the limitation of claim 1 above.

However, the combined system (Admitted prior art – Zitting '148) are silent to disclosing receiving, at a network management system connected to the cross connect switch, an indication that a second subscriber has initiated service; in response to receiving the indication at the network management system, transmitting a command to



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the cross connect switch to connect data processing equipment of second subscriber to the digital access multiplexer; and in response to receiving the command at the cross-connected switch, connecting the data processing equipment of the second subscriber to the digital access multiplexer.

Dunn et al. discloses receiving, at a network management system connected to the cross connect switch, an indication that a second subscriber has initiated service; in response to receiving the indication at the network management system, transmitting a command to the cross connect switch to connect data processing equipment of second subscriber to the digital access multiplexer; and in response to receiving the command at the cross-connected switch, connecting the data processing equipment of the second subscriber to the digital access multiplexer (see figure 1, col. 3, lines 50-56).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Admitted prior art – Zitting '148) with the teaching of Dunn '793, since Dunn '793 recited the motivation in the col. 3, lines 57-58 which eliminates the need for dispatching, a craftsman to the remote terminal for every change, as is required today.

14. In the claims 7, 19, 31, the combined system (Admitted prior art – Zitting '148) discloses the limitation of claim 1 above.

However, the combined system (Admitted prior art – Zitting '148) are silent to disclosing the cross-connect switch is connected to a port of the digital subscriber line access multiplexer and the step of switching out the connection of the data processing

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equipment of the first subscriber to the digital access multiplexer frees up the port of the digital subscriber line access multiplexer.

Dunn et al. discloses the cross-connect switch is connected to a port of the digital subscriber line access multiplexer and the step of switching out the connection of the data processing equipment of the first subscriber to the digital access multiplexer frees up the port of the digital subscriber line access multiplexer (see figure 1, col. 3, lines 50-56).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Admitted prior art – Zitting '148) with the teaching of Dunn '793, since Dunn '793 recited the motivation in the col. 3, lines 57-58 which eliminates the need for dispatching, a craftsperson to the remote terminal for every change, as is required today.

15. In the claims 8, 20, 32, the combined system (Admitted prior art – Zitting '148) discloses the limitation of claim 1 above.

However, the combined system (Admitted prior art – Zitting '148) are silent to disclosing connecting the data processing equipment of the second subscriber to the port of the digital subscriber line access multiplexer that was freed up by the step of switching out the connection of the data processing equipment of first subscriber to the digital access multiplexer.

Dunn et al. discloses connecting the data processing equipment of the second subscriber to the port of the digital subscriber line access multiplexer that was freed up

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by the step of switching out the connection of the data processing equipment of first subscriber to the digital access multiplexer (see figure 1, col. 3, lines 50-56).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Admitted prior art – Zitting '148) with the teaching of Dunn '793, since Dunn '793 recited the motivation in the col. 3, lines 57-58 which eliminates the need for dispatching, a craftsman to the remote terminal for every change, as is required today.

16. In the claims 9, 21, 33, the combined system (Admitted prior art – Zitting '148) discloses the limitation of claim 1 above.

However, the combined system (Admitted prior art – Zitting '148) are silent to disclosing the connection between data processing equipment of the first subscriber and the digital subscriber line access multiplexer comprises a central office MDF connected to the data processing equipment of the second subscriber, a collocation arrangement demarcation connected to the cross-connect switch and a path line connecting the central office MDF to the collocation arrangement demarcation

Dunn et al. discloses the connection between data processing equipment of the first subscriber and the digital subscriber line access multiplexer comprises a central office MDF connected to the data processing equipment of the second subscriber, a collocation arrangement demarcation connected to the cross-connect switch and a path line connecting the central office MDF to the collocation arrangement demarcation (see figure 1, col. 3, lines 50-56).

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Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Admitted prior art – Zitting '148) with the teaching of Dunn '793, since Dunn '793 recited the motivation in the col. 3, lines 57-58 which eliminates the need for dispatching, a craftsperson to the remote terminal for every change, as is required today.

17. In the claims 10, 22, 34, the admitted prior art (figure 1 is a block diagram of a prior art telecommunication system implementing xDSL service) discloses the connection between the data processing equipment of the first subscriber (figure 1, 104) and the central office main distributing frame (figure 1, 106) is unshared (see figure 1, local loop unshared).

18. In the claims 11, 23, 35, the admitted prior art discloses the connection between data processing equipment of the first subscriber (figure 1, 104) and the digital subscriber line access multiplexer (figure 1, 108) comprises a central office main distributing frame (figure 1, 106) connected to the data processing equipment of the first subscriber (figure 1, 104), a collocation arrangement demarcation (figure 1, 111) connected to the test-access switch and a path line connecting the central office main distributing frame (figure 1, 106) to the collocation arrangement demarcation (see figure 1, 111).

However, the admitted prior art is silent to disclosing the connection between data processing equipment of the second subscriber and the digital subscriber line access multiplexer; the test-access switch is cross-connect capability.

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Zitting et al. discloses the system and method of the present invention also provide protection switching by cross-connecting communication lines from their existing connection with a DSL access multiplexer (DSLAM) in the central office to an alternative connection with the DSLAM. For instance, if a DSL modem card in the DSLAM fails, the present invention is capable of switching the existing connections with the failed modem card to an alternative modem card. The cross-connect capability also provides a method of changing the type of DSL service provided to a customer (see col. 2, lines 23-30); the connection between data processing equipment of the second subscriber and the digital subscriber line access multiplexer (see figure 1, cross-connecting communication lines 42).

Both the admitted prior art and Zitting are disclose digital subscriber line access multiplexer. Zitting recognizes the cross-connect switch between the digital subscriber line access multiplexer and a central office main distributing frame. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Zitting to provide the cross-connect switch capability between the digital subscriber line access multiplexer and a central main distributing frame in order to avoid DSL service outages or degradation.

19. In the claims 12, 24, 36, the admitted prior art discloses the connection between the data processing equipment of the subscriber and the central office main distributing frame is unshared (see figure 1, 102).

However, the admitted prior art is silent to disclosing the connection between the data processing equipment of the second subscriber and the central office.

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Zitting et al. discloses the connection between data processing equipment of the second subscriber and the digital subscriber line access multiplexer (see figure 1, cross-connecting communication lines 42).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Zitting to provide the connection between data processing equipment of the second subscriber and the digital subscriber line access multiplexer in order to avoid DSL service outages or degradation.

20. In the claim 14, claim 14 is rejected the same reason of claim 2 above.
21. In the claim 15, claim 15 is rejected the same reason of claim 3 above.
22. In the claim 16, claim 16 is rejected the same reason of claim 4 above.
23. In the claim 17, claim 17 is rejected the same reason of claim 5 above.
24. In the claim 18, claim 18 is rejected the same reason of claim 6 above.
25. In the claim 19, claim 19 is rejected the same reason of claim 7 above.
26. In the claim 20, claim 20 is rejected the same reason of claim 8 above.
27. In the claim 21, claim 21 is rejected the same reason of claim 9 above.
28. In the claim 22, claim 22 is rejected the same reason of claim 10 above.
29. In the claim 23, claim 23 is rejected the same reason of claim 11 above.
30. In the claim 24, claim 24 is rejected the same reason of claim 12 above.
31. In the claim 26, claim 26 is rejected the same reason of claim 2 above.
32. In the claim 27, claim 27 is rejected the same reason of claim 3 above.
33. In the claim 28, claim 28 is rejected the same reason of claim 4 above.
34. In the claim 29, claim 29 is rejected the same reason of claim 5 above.

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- 35. In the claim 30, claim 30 is rejected the same reason of claim 6 above.
- 36. In the claim 31, claim 31 is rejected the same reason of claim 7 above.
- 37. In the claim 32, claim 32 is rejected the same reason of claim 8 above.
- 38. In the claim 33, claim 33 is rejected the same reason of claim 9 above.
- 39. In the claim 34, claim 34 is rejected the same reason of claim 10 above.
- 40. In the claim 35, claim 35 is rejected the same reason of claim 11 above.
- 41. In the claim 36, claim 36 is rejected the same reason of claim 12 above.

### ***Conclusion***

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,347,075 B1; 6,868,060 B2; 6836,509 B1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571)272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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10/25/08

/Edan Orgad/  
Supervisory Patent Examiner, Art Unit 2419